

ABSTRACT OF THE DISCLOSURE

1 Apparatus and methods for detecting high level arc faults in
aircraft power systems are disclosed. One embodiment of the
invention with reduced susceptibility to nuisance trips includes
three low pass filters each having an output connected to a
5 threshold detector. In addition, a three input comparator is
connected to an output of each of the threshold detectors and a
fault verification circuit is connected to an output of the three
input comparator. An embodiment of the method of the invention
for detecting arc faults in three phase aircraft power systems
10 involves detecting at least one of the three phases having a
current exceeding a predetermined threshold, detecting
differences between the three phases and generating a signal
indicative of difference being detected between the three phases
for a time period exceeding a predetermined duration.

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